

Amendments to the Specification:

Please replace the paragraph beginning on page 25, line 31, with the following amended paragraph:

In one embodiment of the present invention the first layer 104 is comprised of the first radiation shielding base 108, the first circuit package 120, the first substrate 112, and the first plurality of circuit die 116. The second layer 106 is comprised of the second radiation shielding base 110, the second circuit package 122, the second substrate 114, and the second plurality of circuit die 118. Advantageously, as shown in Fig. 2, the bottom of the first layer 104 forms a lid for the second layer 106. The first radiation shielding base ~~[[110]]~~ 108 then acts to shield the second plurality of circuit die 118 from radiation. Advantageously, additional layers could be easily added to the shielding package. Thus, the present invention can easily be manufactured with more than two layers. If an additional layer is desired, another layer which is the same as the first layer 104 is put on top of the first layer 104. The additional layer will have a base which will act as the top of the first layer. The radiation shielding lid will then be placed on the additional layer, forming the top of the entire package, now having three layers. When two or more layers are present, the radiation shielding ~~base 322~~ lid 102 is coupled to the top-most layer, e.g., in Fig. 2 the first layer 104. Additionally, the plurality of package leads 128 are then coupled to the bottom-most layer, e.g., in Fig. 2 the second layer 106. Alternatively, the plurality of package leads 128 could be coupled to a different layer.

Please replace the paragraph beginning on page 33, line 22, with the following amended paragraph:

In accordance with one embodiment of the present invention a seal ring (not shown), which is used to seal the radiation shielding lid ~~[[110]] 102~~ to the circuit ~~package 120~~ package 120, can be adjusted in height. This provides for a means of adjusting the space within each layer. Advantageously, this feature can be used when a larger height is needed for the plurality of circuit die within each layer of the shielding device.

Please replace the paragraph beginning on page 34, line 13, with the following amended paragraph:

The first radiation shielding lid 302 is coupled to the first circuit package 316 forming a cavity for the first circuit die 312. The first circuit die 312 is coupled to the first circuit package 316. The second shielding lid 304 is coupled to the second circuit package 318 forming a cavity for the second circuit die 314. The second circuit die 314 is coupled to the second circuit package 318. The shielding base 310 is then coupled to a bottom of the second circuit package 318. Additionally, the plurality of package leads 324 are also coupled to the shielding base 310. The first plurality of conductors 320 and the second plurality of conductors 322 electrically connect to the first circuit die 312 and the second circuit die 314, respectively. The first plurality of conductors ~~[[310]] 320~~ and the second plurality of conductors ~~[[312]] 322~~ also are electrically connected to the plurality of package leads 324. The plurality of solder balls 326 couple the first circuit package 316 to the second circuit package 318.

Please replace the paragraph beginning on page 35, line 23, with the following amended paragraph:

The first radiation shielding lid 302, the second radiation shielding lid 304, and the shielding base ~~[[306]]~~ 310 are all high Z material or alternatively layers of high Z and low Z material as describe above with reference to Fig. 1 and Fig. 2. The first radiation shielding lid 302, the second radiation shielding lid 304, and the shielding base ~~[[306]]~~ 310 have thicknesses chosen to shield the first circuit die 312 and the second circuit die 314 from radiation. The thicknesses are determined such that the first circuit die 312 and the second circuit die 314 are not exposed to an amount of ionizing radiation greater than the total dose tolerances of the first circuit die 312 and the second circuit die 314. This process is described above with reference to Fig. 1 and Fig. 2.

Please replace the paragraph beginning on page 36, line 29, with the following amended paragraph:

Fig. 5 is similar in function and structure to Fig. 2. However, Fig. 5 shows a first circuit die ~~[[416]]~~ 412 attached to the first radiation shielding base 408 and the second circuit die ~~[[418]]~~ 414 attached to the second radiation shielding base 410. The first layer 404 comprises the first circuit package 416, the first shielding base 408, the first circuit die 412, and the first plurality of conductors 420. The second layer 406 comprises the second circuit package 418, the second shielding base 410, the second circuit die 414, and the second plurality of conductors 422. Advantageously, the first radiation shielding base 408 acts as a lid for the second layer 406. Additionally, the radiation shielding lid 402 is coupled to the first layer 404 and the plurality of package leads 424 are coupled to the second layer 406. The plurality of solder balls 426 attaches the first layer 404 to the second layer 406.

Please replace the paragraph beginning on page 37, line 29, with the following amended paragraph:

Fig. 6 is similar in function and structure to Fig. 4. However, Fig. 6 shows the first substrate 528 and the second substrate 530 coupled to the first circuit package 516 and the second circuit package 518, respectively. The first plurality of circuit die [[514]] 512 and the second plurality of circuit die [[516]] 514 are coupled to the first substrate 528 and the second substrate 530, respectively.

Please replace the paragraph beginning on page 40, line 27, with the following amended paragraph:

The plurality of solder balls [[330]] 830 is used to electrically connect the first plurality of circuit die 816 with the second plurality of circuit die 818. Alternatively, a plurality of castellations are used to connect the first plurality of circuit die 816 and the second plurality of circuit die 818, however, in applications which require a high circuit density, the plurality of solder balls is preferred.

Amendments to the Drawings:

The two attached sheets of drawings include changes to Fig. 2 and Fig. 8.

The first sheet, which includes Fig. 2, replaces the original sheet including Fig. 2. In Fig. 2, previous reference numeral 110 has been amended to 108, and previous reference numeral 108 has been amended to 110.

The second sheet, which includes Fig. 8, replaces the original sheet including Fig. 8. In Fig. 8, previous reference numeral 730 has been amended to 728, and previous reference numeral 728 has been amended to 730.

Attachment: 2 Replacement Sheets